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NOTICE OF ALLOWANCE AND FEE(S) DUE

02/29/2008

EXAMINER

SENFI, BEHROOZ M

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 02/29/2008

JAMES A. AMAN 1500 INDUSTRY ROAD SUITE P HATFIELD, PA 19440

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO.

10/006,444 11/20/2001 James A. Aman
TITLE OF INVENTION: OPTIMIZATIONS FOR LIVE EVENT, REAL-TIME, 3D OBJECT TRACKING

APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE

nonprovisional YES \$720 \$300 \$0 \$1020 05/29/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Stop ISSUE FEE
Commissioner for Patents

P.O. Box 1450 Alexandria, Virginia 22313-1450 or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

The All Contras	correspondence includin d below or directed oth	a the Dotant advance or	i) specifying a new corres	pondence address;	and/or	(b) indicating a separ	ate "FEE ADDRESS" for
		ock I for any change of address)	Fee(s) Transmittal. This	certifi	cate cannot be used fo	domestic mailings of the rany other accompanying t or formal drawing, must
JAMES A. AM 1500 INDUSTR' SUITE P	Y ROAD	/2008	•	Cont	:Fanta	of Mailing or Transp	deposited with the United class mail in an envelope above, or being facsimile te indicated below.
HATFIELD, PA	19440						(Depositor's name)
	•						(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTOR	NEY DOCKET NO.	CONFIRMATION NO.
10/006,444	11/20/2001		James A. Aman				4158
			TIME, 3D OBJECT TRA	PREV. PAID ISSUE	ecc I	TOTAL FEE(S) DUE	DATE DUE
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE		\$0	FEE	· \$1020	05/29/2008
nonprovisional	YES	\$720	\$300			7 \$1020	
EXAM		ART UNIT	CLASS-SUBCLASS				
SENFI, BEI		2621	348-169000 2. For printing on the p				
Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Custome Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED O			(1) the names of up to or agents OR, alternation (2) the name of a single registered attorney or a 2 registered patent attolisted, no name will be	vely, e firm (having as a agent) and the name rneys or agents. If r printed.	members of up	er a 2	
PLEASE NOTE: Uni recordation as set forti (A) NAME OF ASSIG	ess an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee pletion of this form is NO	data will appear on the p T a substitute for filing an (B) RESIDENCE: (CITY	atent. If an assigne assignment. ' and STATE OR Co	OUNT	RY)	cument has been filed for
Please check the appropri	iate assignee category or	categories (will not be pr					
	are submitted: lo small entity discount p d of Copies	permitted)	b. Payment of Fee(s): (Ples A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038	is atta	ched:	nown above) Ticiency, or credit any extra copy of this form).
5. Change in Entity Star a. Applicant claim	s SMALL ENTITY statu	is. See 37 CFR 1.27.	☐ b. Applicant is no lon				
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte ites Patent and Trademark	d from anyone other than to Office.	ne applicant; a regis	sierea a	morney or agent; or the	e assignee or other party in
Authorized Signature		and the state of t	<u></u>	Date			
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This collection of inform an application. Confiden submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 d application form to the ons for reducing this bu (irginia 22313-1450. DC 13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or 1.14. This collection is es depending upon the indiverse COMPLETED FORMS To	retain a benefit by the timated to take 12 no vidual case. Any coer, U.S. Patent and OTHIS ADDRESS	ne publ ninutes mments Tradem . SENI	ic which is to file (and to complete, including s on the amount of tin lark Office, U.S. Depa) TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete rument of Commerce, P.O. or Patents, P.O. Box 1450,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/006,444	11/20/2001	James A. Aman		4158		
54613 . 75	90 02/29/2008		EXAM	INER		
JAMES A. AMAN			SENFI, BEHROOZ M			
1500 INDUSTRY			ART UNIT	PAPER NUMBER		
SUITE P HATFIELD, PA 19	9440		2621 DATE MAILED: 02/29/200	8		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 465 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 465 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No. Applicant(s)					
<u>,</u>	10/006,444	AMAN ET AL.	AMAN ET AL.			
Notice of Allowability	Examiner	Art Unit				
·	Behrooz Senfi	2621				
The MAILING DATE of this communication appears All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate communication is s	ithis application. If not included inication will be mailed in due course. Tl	HIS itiative			
1. X This communication is responsive to 11/20/2007.						
2. \boxtimes The allowed claim(s) is/are <u>157-176, renumbered as 1-20</u> .						
3. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). * Certified copies not received:	e been received. e been received in Applicatio cuments have been receive	n No · d in this national stage application from t				
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.						
 A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give 	es reason(s) why the oath or	declaration is deficient.				
5. CORRECTED DRAWINGS (as "replacement sheets") mus						
(a) ☐ including changes required by the Notice of Draftspers		(PTO-948) attached				
1) hereto or 2) to Paper No./Mail Date						
(b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of						
each sheet. Replacement sheet(s) should be labeled as such in the	he header according to 37 CF	R 1.121(d).				
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.						
Attachment(s) 1. Notice of References Cited (PTO-892) 2. Notice of Draftperson's Patent Drawing Review (PTO-948) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ⊠ Interview So Paper No./ 7. ∐ Examiner's	formal Patent Application Immary (PTO-413), Mail Date <u>11/02/2007</u> . Amendment/Comment Statement of Reasons for Allowance				

10/006,444 Art Unit: 2621

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/20/2007 has been entered.

Allowable Subject Matter

- 2. Claims 157 176, renumbered as claims 1 20 are allowed over the prior art of the record.
- 3. The following is an examiner's statement of reasons for allowance: The prior art of the record fails to anticipate or fairly suggest, a system for automatically videoing the activities of one or more participants or objects, as they move about within a predefined area, during a predefined time, comprising: a first set of two or more stationary cameras for generating a first video stream of images that together form a contiguous view of the predefined area throughout the predefined time; a first algorithm operated on a computer system exclusively and solely responsive, to the first stream of video images for simultaneously analyzing the images from each first camera in order to detect the presence of any one or more participants or objects within each and every camera's view, to determine for each detected participant or object its relative centroid two-dimensional location within that view, and to combine this determined information from

each and every first set camera into a tracking database of at least the ongoing centroid two-dimensional coordinates of each one or more participants or objects, relative to the entire predefined area, and a second algorithm operated on a computer system exclusively and solely responsive to the tracking database for dynamically adjusting the current view of each one or more cameras in a second set of movable cameras, distinct from the first set of stationary cameras, wherein each movable camera is automatically directed without operator intervention to maintain an independent view of one or more participants or objects, where the second set of movable cameras outputs a second stream of video images, and where the second stream of video images is not used to either determine any participant's or object's centroid two-dimensional coordinates or to otherwise update the tracking database, as specifies in independent claims 157 and 167, renumbered as claims 1 and 11.

Claims 158 – 166 and 168 – 176, renumbered as claims 2 – 10 and 12 – 20 are allowed with respect to allowable independent claims 1 and 11.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Behrooz Senfi whose telephone number is 571-272-7339. The examiner can normally be reached on M-F 7:00-3:00.

Application/Control Number:

10/006,444 Art Unit: 2621

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Behrooz Senfi Examiner Art Unit 2621

Interview Summary

Application No.

Applicant(s)

10/006,444

Examiner

Behrooz Senfi

Applicant(s)

AMAN ET AL.

2621

	Behrooz Sen	fi	2621		
. All participants (applicant, applicant's representative, PTC	personnel):				
(1) <u>Behrooz Senfi</u> .	(3) <u>James</u>	<u>Aman</u> .			
(2) <u>Gims Philippe</u> .	(4)				
Date of Interview: <u>02 October 2007</u> .					
Type: a)☐ Telephonic b)☐ Video Conference c)☑ Personal [copy given to: 1)☐ applicant	2) applican	t's representative]		
Exhibit shown or demonstration conducted: d) Yes If Yes, brief description:	e)⊠ No.				
Claim(s) discussed: <u>97</u> .					
Identification of prior art discussed:					
Agreement with respect to the claims f) was reached.	g)∏ was not i	reached. h)⊠ N	/A .		
Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Examiner appriciates applicant's remarks and explanation in regards to newly amended claims, and distinction between the prior art of the record and the newly proposed amendment. Examiner would consider that upon receiving the Official amendment and would withdraw the reference, if the Official remarks fund pursuassive.					
(A fuller description, if necessary, and a copy of the amen allowable, if available, must be attached. Also, where no allowable is available, a summary thereof must be attached	copy of the am	the examiner agr endments that w	eed would rende ould render the	er the claims claims	
THE FORMAL WRITTEN REPLY TO THE LAST OFFICE A INTERVIEW. (See MPEP Section 713.04). If a reply to the GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER INTERVIEW DATE, OR THE MAILING DATE OF THIS INFILE A STATEMENT OF THE SUBSTANCE OF THE INTERQUIREMENTS on reverse side or on attached sheet.	e last Office ad OF ONE MOI FERVIEW SUM	ction has already NTH OR THIRTY MMARY FORM, V	been filed, APPI DAYS FROM T VHICHEVER IS	LICANT IS HIS	
Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.		Examiner's signa	ture, if required	· · · · · · · · · · · · · · · · · · ·	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner.
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
 - (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.